

REMARKS

Claims 10-20

Claims 10-20 have been cancelled without prejudice, rendering the rejections of these claims moot. The rejections that are discussed below are thus just those that pertain to still pending claims 1-9. Applicant reserves the right to prosecute the cancelled claims in one or more separately filed continuation patent applications.

Claim rejections under 35 USC 112

Claim 1 has been rejected under 35 USC 112, first paragraph and under 35 USC 112, second paragraph. As to the rejection under 35 USC 112, first paragraph, the Examiner has stated that the specification does not support the limitation that the buffer also stores data resulting from conversion of the second memory line into a set of concurrently performable actions. As to the rejection under 35 USC 112, second paragraph, the Examiner has stated that it is not clear what is meant by converting the second memory line into a set of concurrently performable actions, and how or when the second memory line can then be moved from the buffer to the cache if it has been converted.

Without prejudice Applicant has removed the offending phrase “data resulting from conversion of the second memory line into a set of concurrently performable actions” from claim 1, via amendment. As such, the claim rejections under 35 USC 112 are rendered moot. Applicant also requests that this amendment be entered even though this patent application is at final rejection, because the amendment does not require further search and consideration of the prior art under 35 USC 102 or 35 USC 103, but rather overcomes a procedural defect in the claims under 35 USC 112. As such, the amendment to claim 1 places the present patent application in better condition for appeal.

Claim rejections under 35 USC 102

Claims 1-5 have been rejected under 35 USC 102(e) as being anticipated by Williams (2003/0110356). Claim 1 is an independent claim, from which claims 2-5 ultimately depend. Applicant submits that claim 1 is patentable over Williams. As such, claims 2-5 are patentable at least because they depend from a patentable base independent claim.

The standard for anticipation under 35 USC 102 is that every aspect of a claim must *identically* appear in a single prior art reference for it to anticipate the claim under 35 USC 102. (In re Bond, 15 USPQ2d 1566 (Fed. Cir. 1990)) “[T]here must be *no difference* between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.” (Scripps Clinic & Research Found. v. Genentech, Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991)) In this respect, Applicant submits that claim 1 is patentable over Williams under 35 USC 102 because it is not anticipated by Williams.

Claim 1 recites temporarily storing a second memory line “in a buffer,” where the buffer “also stor[es] eviction data regarding the first memory line.” That is, it is important to recognize that the buffer in which the second memory line is temporarily stored is also the buffer that stores eviction data regarding the first memory line. The same buffer stores both of these items, in other words, in the claimed invention.

By comparison, Williams does not teach the buffer that temporarily stores the second memory line also stores eviction data regarding the first memory line. Williams teaches a “fill buffer 12” that temporarily stores the second memory line in question, but this “fill buffer 12” does not also store eviction data regarding the first memory line. Rather, Williams also teaches a separate “write buffer 14” that appears to be dedicated for the purpose of storing eviction data regarding the first memory line. The Examiner appears to construe Williams in this way as well, noting on page 4 of the final office action, for example, that the second memory line is temporarily stored in “fill buffer 12” of Williams while the eviction data regarding the first memory line in “write buffer 14” of Williams.

The claimed invention is thus limited to using the same buffer that temporarily stores the second memory line for also storing eviction data regarding the first memory line, while Williams conversely discloses using two different buffers for storage of all this information, not the same buffer as in claim 1. Therefore, Williams cannot anticipate claim 1 under 35 USC 102. Every aspect of the invention does not “*identically*” appear in Williams, in contradistinction to the standard for anticipation under Bonds noted above. There is “*a difference*” between the claimed invention and Williams as viewed by a personal of ordinary skill in the art, in contradistinction to the standard for anticipation under Scripps Clinic noted above.

Indeed, Applicant notes that there are advantages associated with temporarily storing the second memory line to be cached in a buffer that also stores eviction data regarding the first memory line. In particular, utilization of such a buffer means that performance benefits associated with temporarily storing the second memory line can be achieved without having to add a buffer that exists solely for the purpose of temporarily storing the second memory line. Rather, this buffer can be, as described on page 6, lines 3-5 of the specification, “an existing buffer that is originally intended for a purpose other than temporary storage of [such] data.” “[T]he use of an existing buffer to temporarily store memory lines to be cached, pending the eviction of other memory lines in the cache, allows for . . . performance benefits without increasing the resources needed by the system.” (Specification, p. 11, para. 44, ll. 6-9.)

Therefore, claim 1 provides advantages that Williams cannot achieve. The performance benefits of temporarily storing a second memory line while waiting for a first memory line to be evicted are achieved in claim 1 “without increasing the resources needed” (specification, p. 11, para. 44, ll. 6-9), because the buffer that is already being used for storing eviction data regarding a first memory line is also used for temporarily storing the second memory line. By comparison, Williams teaches a separate fill buffer 12 dedicated for the purpose of temporarily storing the second memory line. As such, Williams does not realize performance benefits “without increasing the resources needed,” but rather *with* increasing the resources needed.

Claim rejections under 35 USC 103

Claims 6-9 have been rejected under 35 USC 103(a) as being unpatentable over Williams in view of Chryson (6,549,930). Claims 6-9 are dependent claims, depending ultimately from independent claim 1. Therefore, claims 6-9 are patentable because they each depend from a patentable base independent claim, claim 1. That is, insofar as Williams does not teach certain elements of claim 1, as has been discussed above, Williams in combination with Chryson cannot teach all the elements of claims 6-9 under 35 USC 103, because claims 6-9 depend from and incorporate the limitations of claim 1.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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